

REMARKS

Status of the Application

A Request for Continued Examination (RCE) was filed in this application on April 30, 2007 along with a Petition under 37 C.F.R. §1.103(c) for a three (3) month suspension of action. The fee for the suspension of action under 37 C.F.R. §1.103(c) was also paid on April 30, 2007. However, the Examiner nevertheless erroneously issued an Office Action on July 10, 2007 during the period that the case was under the three month suspension of action.

In a telephone discussion with the Examiner on or around July 25, 2007, applicants' representative informed the Examiner of the error and requested that the Office Action be withdrawn. However, rather than withdraw the erroneously issued Office Action, the Examiner suggested that applicants allow the July 10, 2007 Office Action to remain outstanding and stated that the next Office Action would not be made final assuming new arguments and/or evidence are presented in the next reply. Applicants here include new arguments and evidence including a **Declaration** by Yasuhiro YONEDA. Accordingly, Applicants respectfully remind the Examiner that the next Office Action should be made non-final as agreed.

Claim Rejections – 35 U.S.C. §103

Claims 1-10 are rejected under 35 U.S.C. §103(a) as unpatentable over EP '501 (EP 1 020 501) alone, or in view of Liu US '795 and/or Ina US '803, and further in view of Taira '216 (U.S. 6,569,216). For the reasons given below, this rejection is respectfully traversed and reconsideration and withdrawal of the same is respectfully requested.

1. Legal Standard

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

"There are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art." *In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998) (The combination of the references taught every element of the claimed invention, however without a motivation to combine, a rejection based on a *prima facie* case of obviousness was held improper.). The level of skill in the art cannot be relied upon to provide the suggestion to combine references. *Al-Site Corp. v. VSI Int'l Inc.*, 174 F.3d 1308, 50 USPQ2d 1161 (Fed. Cir. 1999).

"In determining the propriety of the Patent Office case for obviousness in the first instance, it is necessary to ascertain whether or not the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the reference before him to make the proposed substitution, combination, or other modification." *In re Linter*, 458 F.2d 1013, 1016,

173 USPQ 560, 562 (CCPA 1972).

Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." *In re Kotzab*, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also *In re Lee*, 277 F.3d 1338, 1342-44, 61 USPQ2d 1430, 1433-34 (Fed. Cir. 2002) (discussing the importance of relying on objective evidence and making specific factual findings with respect to the motivation to combine references); *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

The Supreme Court of the United States has recently held that the teaching, suggestion, motivation test is a valid test for obviousness, but one which cannot be too rigidly applied. See *KSR Int'l Co. v. Teleflex Inc.*, No. 04-1350, slip op. at 11 (U.S. April 30, 2007).

The Supreme Court in *KSR* reaffirmed the *Graham* factors in the determination of obviousness under 35 U.S.C. § 103(a). The four factual inquiries under *Graham* are:

- (a) determining the scope and contents of the prior art;
- (b) ascertaining the differences between the prior art and the claims in issue;
- (c) resolving the level of ordinary skill in the pertinent art; and
- (d) evaluating evidence of secondary consideration.

Graham v. John Deere, 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966).

The Court in KSR did not totally reject the use of "teaching, suggestion, or motivation" as a factor in the obviousness analysis. Rather, the Court recognized that a showing of "teaching, suggestion, or motivation" to combine the prior art to meet the claimed subject matter could provide a helpful insight in determining whether the claimed subject matter is obvious under 35 U.S.C. § 103(a).

Even so, the Court in KSR rejected a rigid application of the "teaching, suggestion, or motivation" (TSM) test, which required a showing of some teaching, suggestion, or motivation in the prior art that would lead one of ordinary skill in the art to combine the prior art elements in the manner claimed in the application or patent before holding the claimed subject matter to be obvious.

2. Distinctions over the Cited Art

"To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." MPEP §2143.03. Applicants respectfully submit that the prior art does not disclose or suggest all of the limitations of the present claims. The prior art does not disclose or suggest the use of colloidal silica particles which meet the formula of claim 1 in a polishing composition with a pH of from 10.5 to 12.

While Liu '795 and Ina '803 each mention the use of colloidal silica, neither mentions the use of colloidal silica particles that meet the limitations of the formula: $D_p \leq D_i + 50$ nm of claim 1 with a pH of from between 10.5 and 12.

Applicants respectfully submit that there is no motivation or suggestion in the prior art to use colloidal silica with a pH of from 10.5-12 and that meets the formula: $D_p \leq D_i + 50$ nm of claim 1. EP '836 at most mentions that when silica particles are used, a pH of 2.5 to 10 is

preferable, and a pH of from 2.5 to 8.5 is even more highly preferred. See paragraph [0059]. Accordingly, a *prima facie* case of obviousness is not established for the present claims and this rejection should be withdrawn.

3. Unexpected Results

Applicants submit that even if it were assumed *arguendo* that a *prima facie* case of obviousness were established, the present application demonstrates unexpected results over the prior art. Applicants herewith attach a **Declaration** under 37 C.F.R. §1.132 by Yasuhiro YONEDA. Applicants submit that the YONEDA declaration demonstrates that unexpected results are obtained for the use of colloidal silica that meets the formula: $D_p \leq D_i + 50 \text{ nm}$ of claim 1 in the presently claimed pH range of 10.5 to 12. See YONEDA Declaration, Figure at page 3, and Tables 2A, 3A, and 4A, at pages 4-7.

Applicants note that the pH is not indicated in the data in Tables 2-4, at pages 28-33 of the present specification. The Tables in the YONEDA Declaration contain the pH for each of the Examples and Comparative Examples given in the specification added in the last column. Tables 2A-4A of the YONEDA Declaration correspond with Tables 2-4, pages 28-33 of the specification, respectively.

The YONEDA declaration shows that unexpected results are obtained when the pH is between 10.5 and 12, and the relation defined by the formula $D_p \leq D_i + 50 \text{ nm}$, as recited in claim 1, is met. The YONEDA declaration also shows that the benefits of the present invention are not obtained when the relation defined by the formula: $D_p \leq D_i + 50 \text{ nm}$ of claim 1 is not met, even when the pH is within the presently claimed range of 10.5-12. See e.g., Table 2A examples 1-7 as compared with the respectively listed comparative examples.

The YONEDA Declaration further demonstrates that low polishing rates are obtained when the pH is within the range of 10.5-12, but when the relation defined by the formula $D_p \leq D_i + 50$ nm of claim 1 is not met. See e.g., Table 3A, Examples 2, 3, 5, and 7-11, as compared with the respective listed comparative examples. Accordingly, the YONEDA declaration shows that unexpected results are obtained when colloidal silica particles that meet the formula: $D_p \leq D_i + 50$ nm of claim 1 are used with a pH of 10.5-12.

Applicants submit that the claims are commensurate in scope with the data provided in the YONEDA Declaration. The YONEDA Declaration presents data which is fully consistent with the limitations of claim 1, i.e., colloidal silica particles that meet the formula: $D_p \leq D_i + 50$ nm and which has a pH of 10.5 to 12. Applicants respectfully submit that the patentability of the present claims is therefore well established, and withdrawal of the pending prior art rejection is respectfully requested. An early reconsideration and Notice of Allowance is respectfully requested.

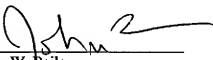
CONCLUSION

Should there be any outstanding matters that need to be resolved in the present Application, the Examiner is respectfully requested to contact J. Mark Konieczny (Reg. No. 47,715) at the telephone number below, to conduct an interview in an effort to expedite prosecution in connection with the present Application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Dated: October 9, 2007

Respectfully submitted,

By 

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Attachment: Declaration under 37 C.F.R. §1.132 by Yasuhiro YONEDA